

ABSTRACT OF THE DISCLOSURE

A directional ground relay (50) for receiving electric values relating to voltage and current from a power transmission line (1) to be protected. The directional ground relay may decide a direction of a fault in the power transmission line based upon the electric values. The directional ground relay comprises a zero-phase sequential current calculation unit (10-2) for calculating a zero-phase sequential current based upon the current detected from the power transmission line. The directional ground relay further comprises a phase-comparison unit (10-3) configured to compare a phase of the zero-phase sequential current to a phase of voltage corresponding to the voltage in the power transmission line, to decide whether the zero-phase sequential current is within a pre-determined range, and to output the phase of the voltage as a faulty phase of voltage, when the zero-phase sequential current is within the pre-determined range.